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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/732,975	12/11/2003	Philip Tousignant	200312987-1	8522

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EXAMINER	
ESTRADA, ANGEL R	

ART UNIT	PAPER NUMBER
2831	

DATE MAILED: 06/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/732,975	TOUSIGNANT ET AL.	
	Examiner	Art Unit	
	Angel R. Estrada	2831	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 March 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-35* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Allowable Subject Matter

1. The indicated allowability of claims 15, 16 and 32 is withdrawn in view of the newly discovered reference(s) to Kitagawa (GB 2,222,913). Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7, 9-14, 17-29 and 33-35 are rejected under 35 U.S.C. 102(b) as being anticipated by McCracken et al (US 6,448,497; hereinafter McCracken).

Regarding claim 1, McCracken discloses a cable routing system (see figure 1) comprising: a first channel (22, vertical direction; or 82,80,84 see figure 5) for routing at least one of a plurality of cables (20, 20') in a first direction (see figure 1); a second channel (22, horizontal direction; or 86 see figure 5) for routing said at least one cable (20, 20') in a second direction (see figure 1); and a plurality of teeth (46) spaced apart from one another and disposed in one of said first channel and said second channel (see figures 2, 5 or 6), said teeth (46) positioned to create spaces in-between said plurality of cables (see figures 2, 5, 6) before said at least one cable transitions from said first direction to said second direction (see figure 1).

Regarding claim 2, McCracken discloses the system (see figure 1) wherein said first channel (22, vertical direction; or 82,80,84 see figure 5) comprises: a base (28); and a plurality of sides projecting outward from said base (see figures 3 and 4).

Regarding claim 3, McCracken discloses the system (see figure 1) wherein said second channel (22, horizontal direction; or 86 see figure 5) comprises: a base (28); and a plurality of sides projecting outward from said base (see figures 3 and 4).

Regarding claim 4, McCracken discloses the system (see figure 1) wherein said first channel (22, vertical direction; or 82,80,84 see figure 5) and said second channel (22, horizontal direction; or 86 see figure 5) are positioned next to each other to create a cable bend area (see figure 1) wherein said bend area is sized to allow said cables to maintain said spaces as said cables (20,20') transition from said first direction to said second direction (see figures 1 or 5).

Regarding claim 5, McCracken discloses the system (see figure 1) wherein said second channel (22, horizontal direction; or 86 see figure 5) further comprises: a cover (66 or 66') operating to cover said second channel base (see figure 3).

Regarding claim 6, McCracken discloses the system (see figure 1) wherein said teeth (46) are located within said second channel (22, horizontal direction) and project outward from said second channel base (see figure 3).

Regarding claim 7, McCracken discloses the system (see figure 1) wherein said teeth (46) are located in said first channel (22, vertical direction; or 82,80,84 see figure 5) next to said bend area (see figure 1) and said teeth (46) project outward from said first channel base (see figures 3 and 4).

Regarding claim 9, McCracken discloses the system (see figure 1) wherein said first channel (22, vertical direction; or 82,80,84 see figure 5) further comprises: a cover (66 or 66') operative to cover said base (see figures 3 and 4).

Regarding claim 10, McCracken discloses the system (see figure 1) wherein said first channel (22, vertical direction; or 82,80,84 see figure 5) further comprises: a plurality of covers (66 or 66'); a plurality of base fastening devices (70) attached to said base (see figure 4); a plurality of cover fastening devices (64) attached to said covers (see figure 4); and wherein at least one of said cover fastening devices (64) is operative to secure at least one of said plurality of covers (66') to said base (28) by fastening to at least one of said plurality of base fastening devices (64, see figure 4).

Regarding claim 11, McCracken discloses the system (see figure 1) wherein said plurality of covers (66', 66) comprise one or more of: a clear cover; an opaque cover; a vented cover; and any combination of said clear, opaque, or vented cover (column 3 lines 14-16 and column 3 lines 5-7).

Regarding claim 12, McCracken discloses the system (see figure 1) wherein said plurality of teeth (46) extend diagonally outward from said first channel base (22, vertical direction).

Regarding claim 13, McCracken discloses the system (see figure 1) wherein said first channel (22, vertical direction; or 82,80,84 see figure 5) and said second channel (22, horizontal direction; or 86 see figure 5) are positioned at a right angle with respect to one another thereby creating a right angle bend (see figures 1).

Regarding claim 14, McCracken discloses the system (see figure 1) wherein said first channel (22, vertical direction; or 82,80,84 see figure 5) and said second channel (22, horizontal direction; or 86 see figure 5) can be mounted inside of an electronics enclosure (since the channel can be mounted on any supporting surface, such as a wall of an electronic enclosure).

Regarding claim 17, McCracken discloses the system (see figure 1) wherein said first channel (22, vertical direction; or 82,80,84 see figure 5) is multisectional (see figure 1).

Regarding claim 19, McCracken discloses a method for routing cables (20,20') comprising: defining a first channel (22, vertical direction; or 82,80,84 see figure 5); defining a second channel (22, horizontal direction; or 86 see figure 5); disposing a plurality of teeth (46) in one of said first channel and said second channel (see figures 1-3), wherein said teeth (46) are spaced apart from one another to create a plurality of cable paths (see figure 3), and running said cables (20', 20) in said first channel (22, vertical direction), through said cable paths, and into said second channel (see figure 1).

Regarding claim 20, McCracken discloses the method wherein said first channel (22, vertical direction; or 82,80,84 see figure 5) comprises: a base (28); and a plurality of sides (see figure 3).

Regarding claim 21, McCracken discloses the method further comprising: positioning said first channel (22, vertical direction; or 82,80,84 see figure 5) and said second channel (22, horizontal direction; or 86 see figure 5) near one another thereby creating an angle bend for said cables (see figure 3) and a cable bend area (see figure

1) wherein said bend area allows said cables (20,20') to maintain cable spacing as said cables transition from said first channel to said second channel (see figure 3); and mounting said plurality of teeth (26) in said first channel next to said angle bend (see figure 3).

Regarding claim 22, McCracken discloses the method wherein said running said cables step (see figure 1); comprise running said cables (20,20') into said first channel (22, vertical direction; or 82,80,84 see figure 5); assigning each cable of said plurality of cables to at least one cable path of said plurality of cable paths (see figure 1); threading said cables through said assigned cable paths (see figure 1); running said cables from said assigned cable paths into said angle bend (see figure 1); and running said cables from said angle bend into said second channel (see figure 1).

Regarding claim 23, McCracken discloses the method further comprising: disposing a plurality of teeth (46) inside of said second channel (22, horizontal direction; or 86 see figure 5), wherein said teeth (46) are spaced apart from one another thereby creating a plurality of second channel cable paths (see figure 3); mounting said plurality of teeth in said second channel near said angle bend (see figure 3); and said running said cables (20,20') from said angle bend into said second channel step comprises: assigning each cable of said cables (20,20') in said angle bend to at least one of said plurality of second channel cable paths (see figure 3), and running said cables from said angle bend through said assigned second channel cable paths into the remainder of said second channel (see figure 3).

Regarding claim 24, Ewer discloses an apparatus (see figure 1) for increasing the bend radius of a plurality of cables (20,20') comprising: a first channel (22, vertical direction; or 82,80,84 see figure 5) having a base (28) and a plurality of sides (see figure 3), and a second channel (22, horizontal direction; or 86 see figure 5) having a base (28), a plurality of sides (see figure 3), and a plurality of teeth (46) spaced apart from one another operating to create spaces in-between said plurality of cables (see figure 3) wherein said first channel and said second channel are positioned to create a cable bend area (see figure 1) wherein said bend area is sized to allow said cables to maintain said spaces as said cables transition from said first channel to said second channel (see figure 1).

Regarding claim 25, McCracken discloses the apparatus (see figure 1) wherein said first channel (22, vertical direction; or 82,80,84 see figure 5) is mounted in an orientation that is vertical with respect to said second channel (22, horizontal direction; or 86 see figure 5) so that a right angle is formed between said first channel and said second channel (see figure 1).

Regarding claim 26, McCracken discloses the apparatus (see figure 1) wherein said teeth (46) are mounted next to said cable bend area (see figure 3).

Regarding claim 27, McCracken discloses the apparatus (see figures 1) wherein said first channel (22, vertical direction; or 82,80,84 see figure 5) further comprises: at least one cover (66,66'); a plurality of base fastening devices (70) attached to said base (see figure 4); and a plurality of cover fastening devices (64) attached to said cover (66')

wherein said plurality of cover fastening devices (64) operate to secure said cover (66') to said base (28) by fastening to said plurality of base fastening devices (see figure 4).

Regarding claim 28, McCracken discloses the apparatus (see figure 1) wherein said first channel (22, vertical direction; or 82,80,84 see figure 5) further comprises: a plurality of teeth (46) mounted inside of said first channel spaced apart from one another projecting outward from said first channel base (see figure 3) wherein said teeth (46) are operative to space said cables apart as said cables run through said first channel (see figure 3).

Regarding claim 29, McCracken discloses the apparatus (see figure 1) wherein said second channel (22, horizontal direction; or 86 see figure 5) further comprises: at least one cover (66,66); a plurality of second channel base fastening devices (70) attached to said second channel base (22, horizontal direction); and a plurality of cover fastening devices (64) attached to said cover (see figure 4) wherein said cover fastening devices (64) operate to secure said cover (66') to said second channel base (22, horizontal direction) by fastening to said second channel base fastening devices (see figure 4).

Regarding claim 33, McCracken discloses a mechanism for routing a plurality of cables (see figure 1), said mechanism comprising: means (22, vertical direction; or 82,80,84 see figure 5) for routing said cables (20, 20') in a first direction (see figure 1), means (22, horizontal direction; or 86 see figure 5) for routing said cables (20,20') in a second direction, means (46) for increasing a plurality of bend radii of said plurality of cables while transitioning from said first direction routing means to said second direction

routing means (see figure 4), wherein said bend radii increasing means comprising a plurality of teethe defining said bend radii (see figure 1).

Regarding claim 34, McCracken discloses the mechanism (see figure 1) further comprising: means (66 or 66') for covering cables routed in said first direction routing means (22, vertical direction; or 82,80,84 see figure 5); and means (64,70) for securing said covering means to said first direction routing means (see figure 4).

Regarding claim 35, McCracken discloses the mechanism (see figure 1) further comprising: means (66 or 66') for covering cables routed in said second direction routing means (22, horizontal direction; or 86 see figure 5); means (64,70) for securing said covering means to said second direction routing means (see figure 4).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 18, 30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCracken et al (US 6,448,497; hereinafter McCracken).

Regarding claim 18, McCracken discloses the system (see figure 1) wherein said first channel (22, vertical direction; or 82,80,84 see figure 5), said second channel (22, horizontal direction); but lacks said teeth being made of galvanized steel. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the teeth of galvanized steel, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 227 F.2d, 125 USPQ 416 (CCPA 1960).

Note: the method of forming the device is not germane to the issue of patentability of the device itself. Therefore, this limitation "made of hot dipped" has not been given patentable weight.

Regarding claim 30, McCracken discloses the claimed invention except for at least one of said plurality of teeth (46) is shaped differently from the remaining plurality of teeth. It would have been an obvious matter of design choice to make at least one of said plurality of teeth's shape differently from the remaining plurality of teeth, since such a modification would have involved a mere change in the shape of a component. Where the instant specification and evidence of record fail to attribute any significance (novel or unexpected results) to a particular shape, a change of shape is generally

recognized as being within the level of ordinary skill in the art. *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

Regarding claim 31, McCracken discloses the claimed invention except for at least one of said plurality of teeth is sized differently from the remaining plurality of teeth. It would have been an obvious matter of design choice to make at least one of said plurality of teeth's size differently from the remaining plurality of teeth, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. In re Rose, 220 F.2d 459, 105 USPQ 237 (CCPA 1955).

4. Claims 15, 16 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCracken et al (US 6,448,497; hereinafter McCracken) in view of Kitagawa (GB 2,222,913).

Regarding claim 15, McCracken discloses the claimed invention except for a gasket positioned between said channels and said electronics enclosure wherein said gasket is comprised of a material that is compatible with electromagnetic interference specifications of said electronics enclosure. Kitagawa teaches an electronic enclosure (see figure 1) with a gasket (1) comprised of a material that is compatible with electromagnetic interference specifications of said electronics enclosure. It would have been obvious to one of ordinary skill in the art at the time the invention was made to make McCracken system with a gasket positioned between the channels and the enclosure and make said gasket of a material that is compatible with electromagnetic

interference specifications of said electronics enclosure as taught by Kitagawe to provide means for protecting the electronic components inside the enclosure against electromagnetic waves.

Regarding claim 16, McCracken discloses the system (see figure 1) wherein at least a portion of said first channel (22, vertical direction) is wider than said second channel (22, horizontal direction) thereby allowing said cables (20) to spread out along said first channel before said cable transition from said first direction to said second direction (see figure 5).

Regarding claim 32, McCracken discloses the claimed invention except for a gasket positioned between said channels and said computer enclosure wherein said gasket is comprised of a material that operates to minimize electromagnetic interference. Kitagawa teaches an electronic enclosure (see figure 1) with a gasket (1) comprised of a material that operates to minimize electromagnetic interference. It would have been obvious to one of ordinary skill in the art at the time the invention was made to make McCracken system with a gasket positioned between the channels and the enclosure and make said gasket of a material that operates to minimize electromagnetic interference as taught by Kitagawe to provide means for protecting the electronic components inside the enclosure against electromagnetic waves.

Response to Arguments

5. Applicant's arguments with respect to claims 1-14, 15-31 and 33-35 have been considered but are moot in view of the new ground(s) of rejection.

6. Any inquiry concerning this communication should be directed to Angel R. Estrada at telephone number (571) 272-1973. The Examiner can normally be reached on Monday-Friday (8:30 -5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on (571) 272-2800 Ext: 31. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

May 26, 2005

Angel R. Estrada

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